

043030ABG - ARROW GEAR COMPANY

- SOURCE DATA -

SOURCE
IDS AND
LOCATION

AIRS: 17-043-0074	IEPA USE ONLY	LATITUDE: 41:47:31.0000
FINDS: ILD005075205	IEPA USE ONLY	LONGITUDE: 88:02:19.0000
FEIN: 36-2343766		YEAR OF DATUM: UNKN
D&B: 00-507-5205		SCALE:
SIC 1: 3566		METHOD: E
SIC 2:		ACCURACY:
SIC 3:		WHERE MEASURED:

SOURCE
ADDRESS

ARROW GEAR COMPANY

2301 CURTISS STREET
DOWNERS GROVE, IL 60515

CONTACT: MICHAEL CERVINKA

PHONE: 630-969-7640

EXT: 235

FAX: 630-969-0253

ANNUAL
EMISSION
REPORT
MAILING
ADDRESS

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AUTHORIZED SIGNATURE_____
DATE_____
TYPED OR PRINTED NAME AND TITLE_____
TELEPHONE NUMBER

171039

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- ANNUAL SOURCE EMISSIONS -

POLLUTANT CODE	ALLOWABLE EMISSIONS (TONS/YEAR)	EMISSIONS REPORTED FOR 1997 (TONS/YEAR)	IEPA 1998 ESTIMATED EMISSIONS (TONS/YEAR)	SOURCE REPORTED EMISSIONS FOR 1998 (TONS/YEAR)
CO	1.0918	0.2328	0.4196	0.21
NOX	4.8920	1.1086	1.8832	1.00
PART	3.4944	0.1330	1.5563	0.08
PM	4.9737	0.9306	1.6613	0.72
SO2				0.006
PM10				0.08

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- PERMIT LISTING -

PERMIT NUMBER	TYPE OF PERMIT	OPERATION NAME	STATUS	STATUS DATE	EXPIRES
73060221	LIFETIME	GEAR MANUFACTURING	GRANTED	04/23/97	

Appendix D-2: Emissions Calculation Notes

Calculation #1: Combustion Emissions

1998 Natural Gas Consumption for Facility = 20.1 mmcf

Actual (TPY) Combustion Emissions

$$\text{PM-10 TPY} = (20.1 \text{ mmcf})(7.6 \text{ lb/mmcf}) * (1 \text{ ton}/2000 \text{ lbs.}) = 0.08 \text{ TPY}$$

$$\text{PART TPY} = (20.1 \text{ mmcf})(7.6 \text{ lb/mmcf}) * (1 \text{ ton}/2000 \text{ lbs}) = 0.08 \text{ TPY}$$

$$\text{SO}_2 \text{ TPY} = (20.1 \text{ mmcf})(0.6 \text{ lb/mmcf}) * (1 \text{ ton}/2000 \text{ lbs}) = 0.006 \text{ TPY}$$

$$\text{NOX TPY} = (20.1 \text{ mmcf})(100 \text{ lbs/mmcf}) (1 \text{ ton}/2000 \text{ lbs}) = 1.00 \text{ TPY}$$

$$\text{CO TPY} = (20.1 \text{ mmcf})(21 \text{ lbs/mmcf}) (1 \text{ ton}/2000 \text{ lbs}) = 0.21 \text{ TPY}$$

$$\text{VOM TPY} = (20.1 \text{ mmcf})(5.5 \text{ lb/mmcf}) * (1 \text{ ton}/2000 \text{ lbs}) = 0.06 \text{ TPY}$$

*AP-42.1.4 Emission Factors. NOX and CO Emission Factors as stipulated in permit.

This calculation includes combustion emissions from all natural gas fired equipment in the facility using the total gas throughput and these average emission factors.

Calculation #2: Solvent Emissions from Parts Washers

Solvent VOC Emissions (TPY)

$$\text{VOM TPY} = 2 \text{ units} \times 0.33 \text{ tons/year/unit} = 0.66 \text{ TPY}$$

Note: AP-42.4.6, Table 4.6-2

Calculation #3: Total VOM Emissions:

$$\text{VOM TPY} = \text{VOM from Combustion} + \text{VOM from Solvent} = 0.66 + 0.06 = 0.72 \text{ TPY}$$

Other Particulate Emissions: It was assumed that the other particulate emissions from the facility were negligible for the purposes of this Emissions Inventory.

Appendix D-3: Facility Layout